Predicting Law School Enrollment:

The Strategic Use of Financial Aid to Craft a Class

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Introduction

Law schools in the United States have been suffering from a substantial decline in applications for the last several years (Hansen, 2015). Particularly, the number of applicants to ABA-accredited law schools has decreased by 38% between 2010 and 2015, from 87,900 to 54,130 (Sloan, 2015). In an economically unstable environment, legal careers have become less attractive because grim employment prospects combined with the high cost of law school attendance (Flanagan, 2015). Although the graduates from top-ranked law schools still find legal job opportunities, students graduating from lower-ranked schools often face difficult job market prospects. In response to this challenge, some lower-ranked law schools have lowered their admission standards so that they can meet the minimum thresholds of matriculation to sustain tuition-related revenues (Flanagan, 2015). However, such a relaxation of admission standards lowers the quality of law school students, the schools they attend, and may have negative impacts on the legal profession. Moreover, students graduating from lower-ranked law schools may not find adequate employment opportunities which may cause hardships in terms of servicing any education-related debt they hold.

The significant decrease in law school enrollment and subsequent decline in admission standards are becoming problems not only for lower-ranked but also top-ranked law schools. One of the top-tier law schools in the nation, which is the case school of this study, has experienced a steady decline in the number of applications received each year since 2012. Enrollments decreased by 13% between 2012 and 2015. Also, data from the case school indicates a statistically significant decrease in mean LSAT scores of the admitted students from 169.3 in 2013 to 168.4 in 2015, although median scores have not changed during the same period. If this situation in legal education and employment continues or worsens, it may become difficult even for the top-tier law schools to maintain enrollments and the current quality of legal

education. If law schools do not receive enough highly qualified applicants, it will be difficult to sustain a class desirable to meet institutional goals with respect to revenue, selectivity, diversity, and overall educational quality.

To address these issues, law schools need to utilize institutional data to study recent admission and enrollment landscapes at their institutions. In particular, they need to be attentive to who applied, who was admitted, and who decided to enroll. Developing and using statistical models and analysis, law schools can predict which admitted students are more or less likely to enroll in their institutions, which can help admission officers craft a desirable class by targeting particular students for recruitment efforts. By doing so, schools may be able to allocate their resources for recruitment efforts in a more efficient way. For example, such statistical techniques make it possible for the law school to allocate funding, such as grants and scholarships, to admitted students who may be on the "margin" to enroll. Thus, the use of admissions data and statistical analysis will be increasingly important, especially given the current challenges faced by law schools.

Student Choice Theories

Undergraduate Student Choice Models

Reviewing college choice theories at an undergraduate level helps us to have a foundational understanding of the mechanisms underlying student choice. While graduate school choice may involve different factors that need to be considered, undergraduate student choice models, developed by numerous scholars over the past decades, have implications for how law school students choose where to enroll.

Research on undergraduate college choice has revealed that selecting a school is a multistage decision process for students, affected by a wide range of factors involving individual

and institutional characteristics. Hossler and Gallagher (1987) suggested a simple but comprehensive model which has been widely used to account for student's college choice behavior. Their three-stage model conceptualizes college choice as a multistage decision process: predisposition, which is the decision to go to college instead of choosing alternative options; search, the process of learning about universities and their characteristics; and choice, the stage at which students complete their applications and choose a particular institution (Hossler et al., 1999).

Since then, studies have built upon Hossler and Gallagher's model utilizing diverse theories such as human capital theory. Human capital investment theory assumes that additional investments in education increase individuals' productivity, and thus, future earnings (Becker, 1962). In the context of college enrollment, when students think that the expected benefits exceed the expected costs of attending college, students decide to enroll. If they conduct the same cost-benefit analysis and find that the benefits do not exceed the costs, they do not enroll in college. As an extension of the economic models, Manski's random utility model (1977) explains that when selecting one college over other alternatives, students decide to select the one that provides the greatest utility (i.e., net benefit). These economic approaches have been particularly useful to study the relationships between finance, such as family income, tuition, and financial aid, and college enrollment (e.g., DesJardins, Ahlburg, & McCall, 2006; Long, 2004).

Despite the usefulness of the economic model of human capital investment theory, there is a limitation that it cannot explain group differences in college choices (Perna, 2006). Indeed, numerous research studies focusing on how financial aid is related to college choice have found significant effects of financial aid on enrollment, but the magnitude of these effects vary considerably across student subgroups (DesJardins et al., 2006). Scholars have assumed that the

samples include students with various characteristics, leading to large variances in effect sizes. Students from different backgrounds (e.g., different income-level and parental context) may respond to the cost of attendance and financial aid in different ways when deciding to enroll at a particular college. In addition, students from various backgrounds have different kinds of information about the expected benefits and costs of attending colleges, on which they base their enrollment decisions (Perna, 2006).

In order to address the limitation of human capital theory, Perna (2006) incorporated sociological theories into the traditional economic models of college choice. Using human capital theory as its core, her multi-layer model pays particular attention to the role of habitus which is shaped by cultural and social capitals. She aims to answer how student backgrounds influence student college choices, and posits that student socioeconomic characteristics and social and cultural capital shape their educational and aspirations and college choice (Perna, 2006). This model has been useful in explaining group differences in student college choice behaviors as well as how individual circumstances and sociocultural structures influence student college access and choices.

Graduate Student Choice Models

A relatively small number of studies have provided conceptual frameworks for student choice at the graduate level. Noting the need for a model that accounts for the both the distinct features of graduate school applicants and their enrollment decisions, a few scholars have developed theoretical models to address students' application and enrollment decisions. They either created new models borrowing concepts from other disciplines (e.g., Bersola et al., 2014; Kallio, 1995), or adapted undergraduate college choice models to fit graduate school choice (e.g.,

Perna, 2004; English & Umbach, 2016). Graduate student choice theories borrow concepts from psychology, economics, and sociology.

For instance, utilizing a psychological theory, Kallio (1995) adapted an adult development theory by Chickering and Havighurst (1981) to describe the developmental tasks that influence graduate school applicants' enrollment decisions. The study found that residency, institutional reputation, and financial aid were consistently significant factors related to enrollment decisions, similar to undergraduate theories of student choice (Kallio, 1995). However, Kallio (1995) also found that work and spouse considerations were additional factors that were significantly related to enrollment decisions for graduate students.

In addition to scholars adapting psychological theories, researchers also frequently utilize economic theories, in particular human capital theory, to explain an individual's pursuit of advanced studies. Studies employing human capital theories focused on students' ability to pay the educational cost and its relationship with application to or enrollment in graduate education. For instance, Millett (2003) found that students who have less family income have lower odds of application to or enrollment in graduate schools than those students who are from wealthy families. This can also be interpreted as financial aid offers from the admitting graduate schools can mitigate the effect of low income on students' decisions to continue their education.

Noting the limitations of economic theories which cannot explain the socially constructed barriers discouraging certain students' pursuit of graduate education, scholars created integrated models which combined human capital theory with social and cultural capital theories (Perna, 2004; English & Umbach, 2016). While placing human capital at its core, the studies by Perna (2004), and English and Umbach (2016) focused on social and cultural capital which support or hinder an individual's acquisition of graduate education-related information and possession of

preference to graduate education. English and Umbach (2016) expanded this approach by adding the concept of organizational habitus, which is undergraduate institutional context shaping a student's preference for graduate education. Combining the findings from the previous studies, it seems feasible to assume that both individual and institutional characteristics influence one's enrollment decision in graduate education. While psychological perspectives suggest that age-dependent factors such as having a spouse or work obligations may have a greater influence on their decision-making process, human capital theory informs us that financial aid can be related to a student's preference for graduate education by lowering a student's financial burden. Moreover, human, social, and cultural capital theories all indicate that students may respond to the financial aid differently, depending on individual or institutional characteristics. Noting the given implications of these theories, this study aims to answer the following research questions:

1. What are the factors related to law school applicants' enrollment decisions?
2. How is financial aid related to an admitted students' decision to enroll in the study institution?

Method

Data

We utilize the individual-level admission data obtained from one of the top-ranked law schools in the nation. This data includes information about prospective students, applicants, and enrollees at the study school over three academic cycles (2013 to 2015). The data is obtained from the actual applications submitted to the study school and includes variables that describe applicants' demographics, academic background, qualifications and interests, undergraduate school characteristics, work experiences, financial aid offered from the

study schools, and attendance at school recruitment events (see below for additional information about these variables).

Sample

The original dataset included 14,305 applicants, 3,900 admitted students, and 919 enrollees. Because this study focuses on student decisions about whether to enroll or not after being admitted to the law school, only applicants who were admitted to the study school are included in this study. There are 3,900 admitted students in the dataset, but after accounting for missing data only 3,557 admitted students are included in the analysis.

Variables

The dependent variable in this study is a binary indicator of whether an admitted student enrolled at the case school or not (1 = enrolled, 0 = not enrolled). The independent variables are described in the following paragraphs.

Demographics. Gender, age, underrepresented minority (URM) status, mother's and father's education, residency status and English language learner are included in the analysis as demographic controls. The gender variable is binary (1 = female, 0 = male). The age variable is categorical with four ranges: 1) 22 years old or below, 2) 23 to 27 years old, 3) 28 to 32 years old, and 4) 33 years old and above. The youngest age category is used as a reference group. The variable indicating student's URM status is dichotomous (1 = URM, 0 = Non-URM). URM includes African American, Hispanic, Native American, and Multiracial students, and non-URM includes White and Asian American students. Mother's and father's education is two separate categorical variables, and each has five levels of educational achievement: high school, some college, bachelor's degree, graduate/professional degree, and grade school. Bachelor's degree is used as a reference group because the largest number of students are in this

category. The residency status variable is categorical with three groups: in-state, out-of-state, and international. The in-state group is used as a reference category. The variable that indicates whether a student is English language learner is dichotomous (1 = yes, 0 = no).

Academic Qualification. Undergraduate GPA, highest LSAT score, and the number of times the LSAT was taken are included in the analysis as indicators of student's academic qualifications. All three variables are continuous. The quadratic of maximum LSAT score is also included in the analysis to allow for a nonlinear relationship between the LSAT score and the probability of enrollment.

Academic Background and Interest. Undergraduate major, undergraduate school selectivity, whether students had a second major as undergraduates, whether they are interested in a dual degree program, and academic law field of interest are included in the analysis. The undergraduate major variable indicates which major students studied in their undergraduate school and consists of five categories, including Social Sciences, Arts and Humanities, Business, STEM, and Others. The Social Science category is used as a reference group. The undergraduate school selectivity variable indicates the competitiveness of undergraduate schools that admitted students attended, which is rated by a Barron's Admissions Competitive Index. This index has five selectivity categories, including most competitive, highly competitive, very competitive, competitive, and less competitive, with the "most competitive" group used as the reference category. Whether students had a second major during their undergraduate career and whether they are interested in a dual degree program are measured as binary variables (1 = yes, 0 = no).

Recruitment Experience. Attendance at an alumni reception at the study school, attendance in campus visit day events, and whether the admits received a Candidate

Referral Service (CRS) recruitment letter are included in the analysis. The CRS letter is a letter sent to prospective students who registered for Candidate Referral Service with the Law School Admission Council. Attendance at an alumni reception and campus visit day events and whether they received a CRS recruitment letter are all binary variables (1 = yes, 0 = no).

Financial Aid. There are three variables measuring financial aid: the total amount of financial aid students received in $1,000, whether they received the most prestigious type of scholarship, and whether an increase in the amount of financial aid was offered to student. The amount of financial aid received is a continuous variable, and the receipt of a prestigious scholarship and the increase in financial aids are both binary variables (1 = yes, 0 = no).

Other Student Characteristics. Whether students' relatives are study school alumni, and whether the admit had previously applied to the study school, whether they started during a semester in the summer, how many years after graduating from college it has been, and students' preferred admission term are also included in the analysis. Whether student relatives are alumni, whether they previously applied, and whether they started in summer are all dichotomous (1 = yes, 0 = no). The variable of years since graduating from college is continuous. The student's preferred admission term is a binary variable (1 = prefer Fall, 0 = prefer Fall or Summer). The application years, whether the student applied for admission in the 2013, 2014, or 2015 academic year are accounted for by including year fixed effects, which accounts for any observable and unobservable differences across years.

Descriptive Summaries

Table 1 presents the descriptive summaries of variables included in the analyses. Among the admitted students, those who enrolled at the study school have lower academic scores (i.e., UGPA and LSAT) than the non-enrollees. While gender and age do not show substantial

differences among these two groups, racial background indicates that students from the underrepresented minority group disproportionately decline the admissions offer from the study institution. Also, residency makes a large difference in that the share of in-state students is significantly greater for the enrollee group. In terms of the academic backgrounds of the admitted students, those who enrolled at the school came more from less selective schools compared to the students who did not enroll. Furthermore, the rate of each group participating in campus visit day events and reception varied. The most noteworthy difference was found in the amount of financial aid offered to the students. The median value of aid that the non-enrollees received was $22,500, whereas students who enrolled at the school received $7,500 less than them. More enrollees were found to prefer either Summer or Fall term to start their study while non-enrollees preferred Fall term only. The details of the summaries can be found in the table below.

Table 1. Descriptive Summaries of Sample

	Not-Enrolled	Enrolled
Sample Size	2,981	919
Academic Score		
UGPA (median)	3.79	3.74
LSAT (median)	170	168
The number of taking LSAT test (mean)	1.5	1.6
Demographics		
Female	50.7%	48.1%
Age		
22 and under	29.9%	29.2%
23-27	65.3%	63.7%
28-33	4.2%	4.5%
34 and over	0.7%	2.6%
URM	19.4%	13.5%
English as a second language	11.9%	11.2%
Father's education		

	Not-Enrolled	Enrolled
High School	7.6%	9.3%
Some College	8.9%	10.3%
Bachelor's degree	27.1%	28.6%
Graduate/professional degree	51.4%	45.9%
Mother's education		
High School	7.3%	10.1%
Some College	7.8%	8.7%
Bachelor's degree	25.2%	26.8%
Graduate/professional degree	47.1%	41.9%
Residency		
In-state	2.4%	21.2%
Out-of-state	91.4%	70.1%
International	6.2%	8.7%
Academic Backgrounds		
Barron's selectivity (undergraduate school)		
Most competitive	59.1%	41.4%
Highly competitive	17.0%	25.3%
Very competitive	8.7%	13.0%
Competitive	7.8%	9.0%
Less competitive	0.6%	1.1%
Major		
Social Science	36.4%	37.0%
Arts & Humanities	20.1%	21.1%
Business	11.0%	10.1%
STEM	6.9%	5.4%
Other	3.6%	3.7%
Double major	34.1%	31.7%
Recruiting Efforts		
CRS letter	72.9%	51.0%
Attended Reception	7.3%	13.1%
Attended Campus Visit Day Events		
Campus Visit 1	8.9%	29.2%
Campus Visit 2	7.6%	24.8%
None	83.6%	46.0%
Financial aid	$22,500	$15,000
Asked for financial aid increase	4.6%	6.8%

	Not-Enrolled	Enrolled
Other Characteristics		
Previous applicant	2.1%	2.1%
Relative alumni	3.1%	5.0%
Interested in dual degree	3.1%	4.7%

Analysis

Using the sample of 3,557 admitted students, a logistic regression analysis is conducted to estimate the probability of admission conditional on various variables described above. This particular statistical technique is appropriate because of the dichotomous nature of the dependent variable, which indicates whether admitted students enrolled or not at the study school. The logistic regression can also identify how various factors, including student demographics, academic qualifications, background, and interest, recruitment experience, and financial aid, are associated with students' decisions to enroll in this law school. For instance, the regression output provides information about whether students with higher academic qualifications are more or less likely to enroll. Average marginal effects are reported for each independent variable in the results section, which provides information about the average change in the probability of enrollment when an independent variable changes by one unit. If the variable is dichotomous, the average marginal effect represents the average difference in the probability of enrollment between the two categories (e.g., males vs. females). If the variable is categorical, it represents the average difference in the probability of enrollment between a given category (e.g., STEM major in college) and the reference category (e.g., Social Science major).

Based on the coefficients generated by the logistic regression analysis, simulation analyses are conducted by calculating the probabilities of enrollment for students with specific profiles and conditions. For example, such simulations allow us to estimate how students with

different levels of academic qualifications might respond differently to an increase in the amount of financial aid. For example, using such simulations allows us to estimate whether the enrollment probabilities of a (hypothetical) increase in financial aid are larger or smaller for students with different characteristics (e.g., by gender; for students with higher or lower academic qualifications,…). Such simulation estimates can help decision makers to better understand which students might be affected by changes in financial aid, which could incentivize them to enroll.

Limitations

One of the limitations in this study is that the data analyzed includes the information about admitted students at only one institution, and thus, our findings cannot be safely extrapolated to the sample of students applying to and admitted at other law schools. Therefore, we hope that this study will be used as an example of how other institutions can use their admission data to make data-driven decisions, rather than interpreting our findings as generalizable to all law schools. Another limitation is that we do not have information about the financial aid offers that the students received from other institutions. Some admitted students may have decided to enroll at another institution because they received higher financial aid offers. Undoubtedly knowing about alternative financial aid offers would be important in explaining enrollment behavior at the study institution, but such data is not readily available.

Findings

Factors Related to Students' Enrollment Decisions

Table 2 displays the results of estimating how the aforementioned variables affect the probability of enrollment at the study school. The results account for the influence of other factors included as controls in the regression. Doing so allows us to estimate how a one-unit

change in one factor would result in a change in the probability of enrollment for this group of students. While an extensive number of factors are included in the models, we focus our discussion on results that are statistically significant or substantively meaningful.

Consistent with the widely acknowledged phenomena found in the practice and studies of enrollment management, students' academic qualifications (e.g., LSAT score, undergraduate GPA score) are significantly related to an admitted student's enrollment decision. Those who have higher undergraduate GPAs or LSAT scores are less likely to enroll at the study institution than their lower scoring counterparts. For instance, a 0.1 point increase in one's undergraduate GPA score is related to a four percentage points (hereafter, ppts) *decrease* in the enrollment probability, Likewise, a one point increase in LSAT score is associated with a four ppts decrease in the probability of enrollment. This finding suggests that applicants with competitive academic scores have many academic and professional options, such as offers from other law schools or job prospects, thus making them less likely to enroll in this particular institution.

Regarding students' demographic characteristics, racial backgrounds, age, and residency are found to be statistically significant. Compared to white and Asian students, URM admitted students are less likely to enroll at this particular institution by 20 ppts. This is consistent with our expectation in that the student population of the study institution consists of white students disproportionately (e.g., 67% of enrollees). Students between the age of 23 to 27 are four ppts less likely to enroll at this law school compared to those who are 22 and under. While the students between 23 to 27 are the majority group at this law school, this finding illustrates that applicants who have a year or less time after graduating undergraduate schools prefer the study institution more than those who have gap years or work experiences since graduation. In-state

students are also more likely to enroll at this institution, specifically their probability of enrollment is 29 ppts higher compared to out-of-state students.

Table 2. The Marginal Effect Size of Independent Variables on Matriculation

	Average Marginal Effect Size
UGPA (for 0.1 point increase)	-0.039***
LSAT Score (for 1 point increase)	-0.037***
URM (ref. White & Asian)	-0.201***
Age (ref. 22 and under)	
23 to 27	-0.042*
Residency (ref. In-state)	
Out-of-State	-0.285***
International	-0.243***
Barron's selectivity: (ref. Most competitive)	
Very competitive	0.043*
Competitive	0.071**
Less or not competitive	0.149*
Major (ref. Arts & Humanities)	
STEM	-0.070**
Previous Applicant	-0.062*
Campus Visit 1	0.225***
Campus Visit 2	0.190***
Total amounts of aid in thousands (for $5,000 increase)	0.018***

Note: Statistically significant factors are exclusively displayed. *p<.05, **p<.01, ***p<.001, N=3,557. The logistic regression result is available upon the request.

Examining the relationship between student's academic backgrounds and enrollment can also inform us about what type of students need more attention for improved enrollment management. For this purpose, the selectivity and major of the students' undergraduate schools are discussed to offer more detailed information about students' academic preparation over and above what is captured solely by academic scores. While the most and highly competitive

. For instance, students who graduated from institutions that are classified as very competitive, competitive, or less or not competitive have 4 ppts, 7 ppts, and 15 ppts higher probability of enrolling at this law school, respectively. In addition to the selectivity, applicants' major in their undergraduate institutions also provides useful information about the characteristics that differentiate enrollees from non-enrollees. Compared to the graduates in Arts and Humanities, students who majored in STEM in their undergraduate education are less likely to enroll at the study school (-7 ppts).

Law schools utilize various recruiting strategies to increase their enrollments. Although several recruitment strategies were included in this analysis, campus visit day events were the only recruitment tool found to be significantly related to enrolling at this law school. Campus visit days are events hosted for admitted students to offer detailed information about the learning environment and activities at the study institution. Participants have a chance to acquire a wide range of information about classes, the campus, fellow students, faculty, financial aid, and career planning. While the study law school offers two campus visit day events, those who participate in either the first or second event are more likely to enroll than non-participants. Even among the two events, participants in the first visit day had a higher probability of enrollment than those attending the second event. These encouraging findings, however, need to be taken cautiously because these do not ascertain the causal effect of the events on enrollment. This means that we cannot know whether the participants enrolled as a result of attending the program or they already had intentions to enroll even before participating in the events.

The last noteworthy finding is the relationship between financial aid offered to a student and their enrollment probability. Financial aid is a tool that schools employ to recruit students and create a cohort that meets its goals. The amount of financial aid offered to admitted students at the study institution has increased over time. The relationship between financial aid and the enrollment probability indicates that when all other factors are held constant, a $5,000 increase in financial aid is associated with a two percentage point increase in the probability of enrollment. This suggests that increases of $1,000 in financial aid would increase the enrollment probability by about one-third (0.35) of a percentage point. Although this effect size may seem small, students' response to the change in financial aid may vary greatly depending on their characteristics. This implies that some students may have a much higher probability of enrolling than their counterparts given the same amount of financial aid offered. Further understanding of how financial aid increases might change enrollment probabilities for different groups of students would help law school professionals to effectively utilize their financial resources.

The Relationship Between Financial Aid and Students' Enrollment Decisions

In this section, we present simulation results of how predicted enrollment probabilities would change if student aid is (hypothetically) increased. Using the results from the logistic regression analyses, we can estimate how different types of students would respond to increases in financial aid offers. Depending on their preferences, some students are more sensitive to such changes in aid, whereas others would not enroll at the institution regardless of the amount of aid provided. This implies that the use of financial aid could be used to target specific students who are likely to respond to a change in aid. Thus, the following aid scenarios illustrate how an enrollment management office within a law school could use the previous logistic regression analysis to conduct similar simulations.

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Figure 1 displays the differences in the predicted probabilities of enrollment of URM and non-URM students by financial aid award amount offered. URM students have significantly lower probabilities of enrollment and are less sensitive to financial aid increases than the non-URM group, illustrated by the flatter slope of the URM predicted probabilities. While non-URM students show a high level of sensitivity to increases in financial aid, the influence of aid increase on URM students is very limited (i.e., the slope of the URM line is basically flat). The enrollment probability of URM students is predicted to be below 10% even with the maximum amount of financial aid offer (greater than $60,000). On the contrary, the predicted enrollment probabilities of White and Asian peers are within a range between 10% and 50%. This illustrates that URM students consider other factors than financial aid when choosing schools.
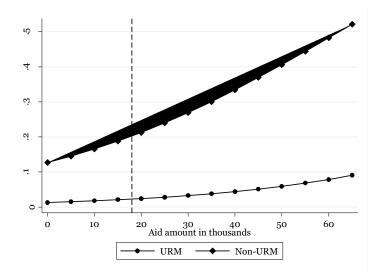
Figure 1. The Predicted Probabilities by URM Status and Financial Aid

Note: The dash line indicates the median amount of financial aid offered to the admitted students.

Interestingly, residency status shows remarkable differences in the probability of enrollment at this particular institution (Figure 2). Consistent with previous findings, in-state students have higher enrollment probabilities than out-of-state students. When taking a detailed

look at the out-of-state student groups, domestic students who have permanent residence in other states show even lower enrollment probabilities than their international peers. The simulation findings also indicate that expected aid needs to be above $50,000 in order to equate international students' enrollment chances to those of in-state students who are given no financial aid. The expected amount of aid offer for out-of-states peers is even greater. It needs to be above $60,000 to have the equivalent enrollment rate (38%) of in-state students who are offered zero dollars in aid.
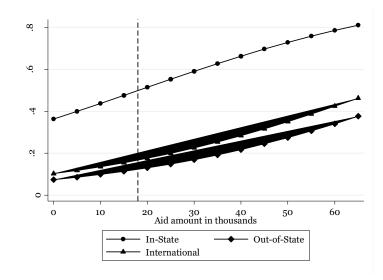
Figure 2. The Predicted Probabilities by Residency and Financial Aid

The selectivity of undergraduate schools which the admitted students graduated from suggests that students who graduate from less selective institutions are more sensitive to increases in financial aid. While the study institution is classified as a highly competitive institution at the undergraduate level, students who are graduates of the most or highly competitive schools have the lowest predicted probability of enrolling. This implies that these students, who comprises the majority of the admitted students, are not as likely to enroll as other students from the schools who are from less selective schools, unless they are offered substantial

financial aid packages. For instance, in order to have 20% enrollment probability of the students who graduated from the most competitive schools, expected aid needs to be $40,000, whereas it only needs to be $25,000 for students who graduated from colleges classified as very competitive institutions.
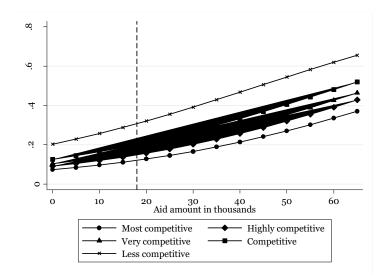
Figure 3. The Predicted Probabilities by Barron's Selectivity Scores and Financial Aid

Figure 4 illustrates the price-sensitivity of students who do and do not attend campus visit day events. Campus visit days are activities held by the study law school for admitted students in the spring before the enrollment deadline. Students utilize this opportunity to acquire further information about school (i.e., student, faculty, curriculum, financial aid and career planning). The study institution aims at promoting itself to the attending students by actively reaching out to them during the events. The simulation results indicate that students who do not attend the event are far less sensitive to changes in aid than those who attend any of the events. For example, to achieve an enrollment probability of 20%, which is the overall average enrollment probability of the sample, those who do not attend any of the events would need to receive $45,000, whereas their second visit day attending peers would need no financial aid.
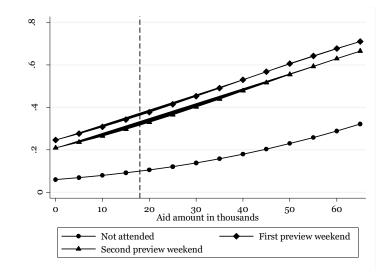
Figure 4. The Predicted Probabilities by Campus Visit Day Participation

Figure 5 indicates the predicted probability of enrollment for two hypothetical cases: a) a student with LSAT score of 169 and an undergraduate GPA of 3.75, and b) a student with LSAT score of 168 and an undergraduate GPA of 3.78. When simulating the probability by adjusting the amount of financial aid offered to these two types of students, we see that they respond to the change in aid differently. The student with an LSAT score of 168 and an undergraduate GPA of 3.78 have a greater probability of enrollment and are more sensitive to the aid amount. On the contrary, a student with an LSAT of 169 and an undergraduate GPA of 3.75, responds less to increases in financial aid. This shows that the students of this type are less likely to enroll than those of the second case when the same amount of award is awarded. This finding also implies that if the study institution sets a higher LSAT score and lower UGPA cut-offs for admissions, it may have lower enrollments, contrary to the case of reducing the LSAT cut-line and raising the bar of undergraduate GPA. The simulation results are useful for law schools because they can simulate the probabilities of various cases by plugging in student characteristics and predicting their likelihood of enrollment across various financial aid packages.
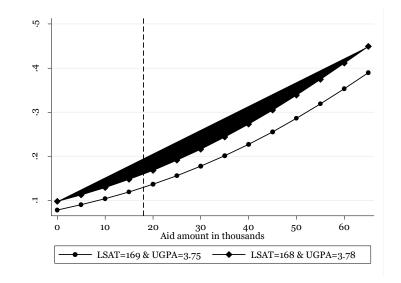
Figure 5. The Predicted Probabilities by Academic Scores

Discussion

Law school enrollments across the country have been declining recently. With this
decline, some law schools have loosened admissions standards while others have looked for
ways to maintain their admissions standards in a very competitive environment. As a result of
the decreased demand for law education and increased competition among top law schools,
admissions officers and enrollment managers need to leverage their administrative data to make
data-driven decisions and allocate resources effectively and efficiently. In this paper, we
theorize that students admitted to law school may respond differently to offers of financial aid
depending on their individual characteristics. Within this particular law school, we found that
URM students are particular insensitive to increases in financial aid. Across the financial aid
amounts simulated here, their probabilities of enrollment never exceed 10%. This illustrates that
URM students likely make enrollment decisions based on other institutional characteristics than
the financial aid offered.

Additionally, we found that financial aid offers can increase the probability of enrollment for in-state students, out-of-state students, and international students. While in-states are more likely to enroll at this law school regardless of their financial aid, out-state students and international students are more sensitive to financial aid increases. If law school enrollment managers are interested in increasing out-of-state or international student enrollment, increasing financial aid might be a way to attract students. Overall, students who graduated from various undergraduate institutions seem to be influenced in similar manners by financial aid, evidenced by the similar slope of their predict probabilities in Figure 3. While students who attend less competitive undergraduate institutions are more likely to attend this law school, all students are influenced by financial aid in a similar manner.

While the predicted probabilities of enrollment for the participants of both campus visit day events exceed the probabilities for students who did not attend, it is difficult to interpret this result. We do not know if students who attend the events have already decided to attend this law school and are therefore showing their intent of enrollment by attending or if the events induce students to enroll at this particular institution. Further investigation into the influence of events is necessary to disentangle the causal and temporal dimension of campus visit day and deciding to enroll.

Finally, we illustrate that admitted students with extremely similar academic qualifications have different predicted probabilities of enrollment across the financial aid range. In general, the student with the higher undergraduate GPA but lower LSAT school was more likely to attend this particular institution. However, if the student was given zero financial aid, their probability of enrollment is only approximately 10%. However, if this student is awarded the median amount of aid, their predicted probability of enrollment increases to approximately

17%. In contrast, the student with the slightly lower undergraduate GPA but better LSAT would have a predicted probability of enrollment of approximately 11% if they were provided the median amount of aid. This simulation suggests that students who seem remarkably similar on their academic qualifications may respond differential to various amounts of aid.

Practical Implications

Given that this analysis was completed for a single, selective law school, our findings should be used as examples for what can be done with detailed administrative data that likely many admissions offices in law schools across the country collect on a yearly basis. In order to make data-driver decisions at particular institutions, admissions and enrollment management offices at individual institution would need to conduct this exercise with their own data to understand how their admitted pool of students respond to various financial aid offers and recruitment efforts. In order to conduct this analysis, analysts need multiple years of data, a rich set of variables that include information about admissions and enrollment decisions, student demographics, LSAT scores, undergraduate GPAs, undergraduate institution, programming/events, and financial aid offers.

Once a logistic regression model is estimated, admissions officers and enrollment managers can develop particular student profiles that they are interested in enrolling at their institution and simulate how relationship change (or not) when policy variables (e.g., financial aid, recruitment letters) are changed. Finally, once admissions and enrollment offices determine the likelihood of enrollment for various student profiles, they may consider conducting an institutional self-study to determine why particular student groups are less likely to enroll than other groups.

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